In France the average of offspring to each family is 2.93, the smallest average of any country in Europe.

The thousand-mile ship canal between the Baltic and Black Seas will be completed in five years and will cost $100,000,000.

Geographers have made a careful estimate of the population of Africa and place the total at 163,053,000, which is 42,240,000 more than the aggregate population of North and South America. Europe and Africa combined have a population of 521,332,000 though their area is not greater than that of all America.

Pittsburg is thoroughly in earnest about its ship canal from the Ohio River to Lake Erie, and has placed three parties of engineers in the field to decide on the route, declares the Chicago-Times Herald. It is admitted that the canal will benefit other lake and river cities also, but Pittsburg takes the broad view that what helps other cities will help it even more as one of the terminal points.

It seems strange to the San Francisco Chronicle that any one should have been made insane by riding in the Ferris wheel at the World's Fair, but the reason of one young woman was upset by the novel experience. The report now comes that she has just recovered her reason after living a year and a half under a cloud. Her case is worthy of the study of alienists, for it will probably be found that her mind was in an unhealthy state when she went to the fair, and the excitement of this novel ride in the air was the last incident needed to upset her mental equilibrium.

According to the Correspndenze Berlin, the attendance of Americans at German universities shows a slight falling off during the present year. Only 361 Americans were entered, as against 428 last year. Our contingent, nevertheless, remains the largest of all foreign seekers of knowledge. The Swiss number 238, Austrians, 219, Russians 351, Turkey and the Balkan counties 162, Scandinavians 24, Dutch 43, Belgians 39, British 138, French 27, Italians 26, Spanish Americans 32, Asiatics 66, Africans 6 and Australians 5. The Germans matriculated at the twenty-two universities of the empire number 25,672.

A fundamental change in the method of teaching English composition is to be made at Yale at the beginning of the next college year, announces the Atlanta Constitution. The system is one heretofore untried. The main features of the scheme are, as far as possible, an abandonment of formal theme writing upon some assigned abstruse subject, but a gradual development of the individual style of the writer by frequent conferences between the teacher and pupil. It is, as termed by its author, an "office hour" system. Under its provisions the pupil will meet the instructor, submit his thoughts, plans for work in English, exhibit his customary style of expression, and receive suggestions toward developing his "style." The personal instruction secured under this system is one of the main points in which its excellence is manifested. The professor will give the greater part of his "office hours," conferring with the students of the various courses, relative to shaping their style.

We have heard the old-fashioned injunction, "Dot your i's and cross your t's" so often that it has grown to have almost a scriptural sound, and it has become a second nature to conscientious people to obey it without question. But what valid reason is there for our doing it? asks the San Francisco Examiner. One of the most valuable anong recent innovations in our school system is the introduction of what is called "vertical writing," and the elimination of all useless flourishes, to the end that legibility may be improved and increased skill attained. Even Edison, to whom the world owes so much of useful invention, has devised a system of handwriting which is supposed to eliminate all useless lines, and by means of which he can write fifty-four words a minute. Yet to Mr, Elison's brilliant mind this very simple, though radical, change has not occurred. As a matter of fact, there are no letters in our alphabet which resemble the written "t" and "i," when these and the "l's" and "e's," with which they might be confounded, are formed with due propriety. Only those who have experimented can realize the very great saving of useless labor and the gain in speed when we do not pause in our headlong course along the written line to dot our i's and to cross our t's.

### So Many Things I Do Forget.

So many things I do forget,
And fain would I remember,
Bright things, glad thing, my footsteps met
Before they touched December.
But the home where my childhood learned its songs,
And the trees where my father set them,
And the brook, and the bank where the pine belongs,
I never can forget them.

So many things I do forget,
And fain would I remember,
Bright things, wise things, my footsteps met
Before they touched December.
But the friends of childhood long ago,
By the mountain shadowed river,
With a fadeless light their names shall glow
Forever and forever.

So many things I do forget,
And fain would I remember,
Bright things, sweet things, my footsteps met
Before they crossed November,
But the blue of my angel mother's eye
And the tears of love that wet them,
And the kisses or one beyond the skies,
I never shall forget them.

So many things I have forgot,
Nor do I wish to remember.
Sad things, hard things, I tell them not
To April or December.
But the ivies of the mountain wood,
And the scarlet plums behind them,
Would I forget them if I could,
Forgetting who could find them?

So many things we do forget,
And fain we would remember,
Ere feet that danced the minuet
Have walked to slow December.
But the songs that silent lips have sung,
Our memories silhouette them,
We sing them over. We are young,
And never can forget them.

—JULIA H. MAY, in Boston Journal.

## NOT MERELY A VOICE.

I had what most musical enthusiasts pronounced a phenomenal organ, and oh, how I gloried in it! I sang at concerts with triumphant success, for I never knew what stage fright meant. I suppose it was because I never thought of myself at all, but merely listened to the tones of my voice, feeling thrills of delight and joy as it echoed through the great halls.

Yes, I gloried in my powers, and in the appreciative applause of others. And that made trouble between Larry Wilson and me. I loved and was willing to marry him, but I would not give up my career, as I delighted to call it, merely to please his fancy. For I thought it a very selfish fancy, and said so plainly.

"If you really loved me, Phyllis," was his unvariable reply, "you would yield willingly to my wishes." And at that point silence at once reigned profound.

But something happened that put an effectual quietus on my voice for some time. I slept in a pretty room on the ground floor, for I never had been nervous in my life. But one exceedingly sultry night, when the windows were wide open, I was awakened from a sound sleep by the sudden flash of a light in my face. I opened my eyes, and there stood a man, as huge as a giant, it seemed to my bewildered gaze. He held the lamp above his head and glared with great, cruel eyes directly into mine. I gave a piercing shriek, which sent the man headlong out of the window. Still I kept on screaming, until every member of the household came running to my room.

She next morning I could not speak above a whisper, and it seemed to me that my heart would break. Could it be that I never should hear myself sing again? It was to cruel! My parents sent for a physician, who made me open my mouth while he peered inside, talking of my larynx and epiglotis, until he frightened me quite as much as the burglar. He said I must have patience; that when my talking voice returned probably my power to sing would also be restored.

I cried nearly all the time for three days. Then Larry came and asked me to marry him right off. Men seem to think that proposals of marriage must be wonderfully soothing; they may be so at times, but not always. Yet I love Larry dearly, and his tender words were very satisfactory and sweet to hear. I was humble just then, and talked in what I am sure must have been a touching way about my being a poor, maimed, miserable creature, very different from the girl I had formerly been.

Larry combatted all I said. I am afraid he did not regret the loss of my voice very much. But such magnanimity could hardly be expected even of him. Of course he was sorry for me, but then the obstacle in the way of our marriage was now removed. He could be eloquent when he chose, and finally I whispered in his ear (I could not do anything but whisper) that I would marry him in a month.

Then all was hurry and confusion in the excited household in preperation for my wedding. My two younger sisters were all eagerness, and so full of merry life and talk that I almost forgot my great affliction, and grew more cheerful But one day, as I sat sewing in my room, I happened to to think of an operatic air I was fond of, and forgetting my recent misfortune in good earnest, I gave utterance to the sounds that haunted me, the rich full notes swelling higher and louder as in wonder and ecstacy I tested my returning powers. Springing from my seat I threw back my head, and expressed my delight in one loud strain of triumphant melody. Then my mother and sister appeared with words of eager congratulation.

"Can it be that your beautiful voice has come back for good?" they all asked, and in reply I allowed another happy paean to confirm the glorious truth.

"Phyllis," said Maud, "the nightingales themselves will envy you."

They hugged and kissed me until Ruth suddenly drew back, saying:

"Now, she will not be married, and all those lovely dresses have been made for nothing."

"No, indeed!" I answered quickly, "If Larry objects to me because I have my voice again, those dresses will do for concerts, as I shall accept the first offer I receive to sing in public. I want all my friends to know that I am no longer a mute. But I must send word to the boy at once. I shall pretend that I think he is delighted."

Consequently, when he came, I exclaimed:—

"Oh, Larry, are you not glad that my voice has come back to me as strong and clear as ever?"

The poor fellow tried to look sorry, but there was no deceit about him, and his eyes betrayed his real feelings.

"Are you not glad?" I persisted.

"And are you not a little ungenerous?" he asked in return.

"No!" I cried. "A gift like mine is simply divine, and I do not understand how any one who is so fond of me can dislike my voice."

"I should delight in it quietly at home, but to see you upon a public stage, opening your mouth to amuse a money crowd, is very different."

"Well," I said, somewhat impatiently, "of course you are at liberty to take back all you said out of pity for me in my forlorn condition. You were very kind, but I do not need your pity now." And I drew myself up proudly. "Listen! Will you—can you?"

"Certainly," he replied with an air of resignation.

Then I stood up before him and sang the sweetest, most caressing little love song that tender-hearted maiden ever sang to a listening lover. The tears came to his eyes, and, springing up, he threw his arms around me.

"You cruel girl!" he cried. "You know your power so well! I cannot live without you. Phyllis! Sing where you will and when you will, only love me, darling, love me!"

Then I cried, too, and whispered through my tears:—

"Larry, I will be just as true and devoted a wife as if this beloved voice of mine belonged to some other girl."

And after that we had no more disputes or controversies.

We have been married two years and I have sung with the most flattering success a great many times, dear old Larry always escorting me. But lately I have led a more quiet life, because there is a young Larry Wilson. He has an organ also; an imperative one. The tyranny which seems innate in man reveals itself plainly in these tiny morsels of humanity. But then, how sweet it is.

An agent called the other day. I had just agreed to sing at a brilliant entertainment, when suddenly the baby cried. Cried? He roared.

"Oh, dear," I eqclaimed, "I forgot what I was doing. I cannot leave my baby. I should here him cry if I were two miles away."

"He has a pretty reaching voice," the man replied, as the shrieks grew louder and louder.

"It would certainly reach my ears," I declared. "And that high falsetto of his, even if oblivious of keys, has more effect upon me than the truest soprano or contralto in the world."

"I will go now," the agent said, "and perhaps you will change your mind. Think of it a while, and allow me to call again in a day or two."

"No!" I replied, decidedly; "go to Miss Perkins. She has not even a husband to consult in the matter." The man left me a little contemptuously, I thought, because he regarded me as simply a creature with a "magnificent organ." But when I told Larry he gave me a hug almost painfully suggestive of bruin.

"Phyllis!" he cried. I'm so glad I married a woman—not merely a voice!"

I still think the world of that voice, notwithstanding. But oh? you should see my baby!—Waverly Magazine.

### Medical Properties of the Apple.

According to a medical authority it appears that chemically the apple is composed of vegetable fibre, albumen, sugar chlorophyl, malic acid, gallic acid, lime and much water. German analysts say that the apple contains a larger percentage of phosphorus than any other fruit or vegetable. The phosphorus is admirably for renewing the essential nervous matter—lecithin—of the brain and spinal cord. It is, perhaps, for the same reason, rudely understood, that old Scandinavian traditions represent the apple as the food of the gods, who, when they felt themselves to be growing feeble and infirm, resorted to this fruit, renewing their powers of mind and body. Also, the acids of the apple are of singular use for men of sedentary habits, whose livers are sluggish in action, those acids serving to eliminate from the body noxious matters, which, if retained, would make the brain heavy and dull, or bring about jaundice or skin eruptions and other allied troubles. Some such experience must have led to the custom of taking apple sauce with roast pork, rich goose, and like dishes. The malic acid of ripe apples, either raw or cooked, will neutralize any excess of chalky matter engendered by eating too much meat. It is also the fact that such ripe fruits as the apple, the pear and the plum, when taken ripe and without sugar, diminish acidity in the stomach rather than provoke it. Their vegetable sauces and juices are converted into alkaline carbonates which tend to counteract acidity.

### Force Exerted on the Bycycle.

A French scientist has recently made some experiments which show the amount of force developed by some of the bicycle experts in a hard race. Windle and Zimmerman have maintained for two minutes a speed to continue which required the expenditure of energy representing two-thirds of one horse power. For six seconds they were able to exert the astonishing force of one and a fourth horse power. This is equivalent to raising a weight of 188 pounds one yard high in one second. This is a conservative estimate, owing to the insufficiency of the coefficients of power used in making the calculations.

Experiments are also being made to determine the force exerted by different sports. These results will be of use for training and as a hygienic data. One of the discoveries made during the calculation of the force exerted by bicyclists is that at high speeds the work of a bicyclist in covering a specified distance is as great as that of a man running the same distance. At a moderate speed a runner undergoes three times the labor of a bicyclist, but the higher the speed, the nearer are their exertions equalized.

### Why Many Fishing Vessels Are Lost.

There is one class of vessels which is most annoying to those who direct the course of large steamers. These are small fishing vessels. On the Grand Banks of Newfoundland, on the coast of Spain and on the coasts of China and Japan big fleets of these little vessels are found at all times. They show no lights at night, preferring to save the expense of oil and take their chances of being sent to the bottom; but when they see a big ship rushing down on them they light a torch and flare it about. Often they pay for their folly with their lives. The torch is seen too late, or not seen at all, and the great iron bow of the steamship crushes into the frail little craft, perhaps cutting her clean in two; and the unhappy fishermen sink into the foaming wake of the churn-propellers, leaving not a soul to tell their wives at home what became of them.—St. Nicholas.

### Uncomplaining Victims of a Joke.

A joker whom no one objects to has turned up at Doylestown, Penn. The mania of the individual is to surprise people by sending them two-dollar bills. Within a week not less than a dozen people have received through the postoffice there envelopes in which were nicely-folded two-dollar bills. The envelopes are all in the same handwriting, but the contents give no clue of the sender. The fortunate recipients of the individual's attention, so far, have been young women, but in several cases men have received envelopes with two-dollar bills inclosed. Since the facts have become known the postoffice visitors have been steadily increasing.—Philadelphia Recorder.

### She Knew.

Lucy: What do you find so interesting in that smoothed-faced young Jones?

Lola: Why, Lucy! His face isn't smooth at all.—Browning's Monthly.

## PEPSIN.

### A Mysterious Secretion of the Hog Defying Analysis.

### Factories That Keep Busy Making Artificial Digestions.

Every one is familiar with the methods of repairing humanity with artificial legs, glass eyes, false teeth and wigs, but it may not be generally known that a factory at the stock yards in Chicago is busy all the year around in making artificial digestions.

For it is the purpose of pepsin to relieve the man whose stomach has rebelled at harmful methods of eating. After each meal he simply takes a little tablet of the digestion, which he carries in a convenient vest pocket, swallows it and forthwith forgets—in theory at least—all his troubles. Any one will admit that this is a charming arrangement.

In health manufactured pepsin is not necessary because the stomach furnishes its own supply. There are millions of little cells that have no other duty than to furnish the ferment, and when the food comes down which they have been saving up, and by its peculiar properties the marvelous process of digestion goes forward. But if a man overworks his stomach by eating too much or too often or by going to work too soon after eating, the cells grow tired and finally fall sick and cannot perform the task set for them. To remedy this difficulty some inventive genius conceived the idea about ten years ago of taking the pepsin from the stomachs of hogs and concentrating it into a convenient form for use. Since that time the process which was then confined to the chemical laboratory and was conducted on an exceedingly narrow basis, has assumed the proportions of an industry, and thousands of persons are using the product. There are varieties of chewing-gum which are said to contain pepsin in small quantities.

The laboratory in which it is made is located close to where 1,500,000 hogs are killed annually, and within an hour from the time the animal breathes its last the part of his stomach (about the size of a man's hand) in which the pepsin can be found is in the hands of Professor Mann's men. The pieces are placed at once in rows of crocks containing dilute hydrochloric acid, a .032 per cent solution, where they are left all day long. They are then taken out and the men put them through a secret chemical process to remove the peptone, or the product of the digestive action of the pepsin on the membranous parts of the stomach, with which it comes. It then goes to a vacuum pan, where, by a steady, low heat, the moisture is partially removed, after which it is spread on glass plates, where it dries down to thin, white yellow scales, having a peculiar, brilliant lustre. Girls pack the product in bottles and it is reads for shipment.

The market price is about 75 cents an ounce, and it takes ordinarily about 100 hogs' stomachs to make a pound of pepsin. Numerous tonics composed of wine and pepsin are also made at the factory.

No one knows just what pepsin is. It has never been isolated from the cells of the stomach, and no chemist has ever been able to analyze it. It is to the stomach what magnetism is to the magnet. The United States pharmacopœia for 1890 defines it as follows:

"Pepsinum (Pepsin): A proteolytic ferment or enzyme obtained from the glandular layer of fresh stomachs from healty pigs, and capable of digesting not less than 3,000 times its own weight of fresh coagulated and disintegrated egg albumen. A fine white, or yellowish, transparent or translucent grains or scales, free from any offensive odor, and having a mildly acidulous or slightly saline taste, usually followed by a suggestion of bitterness. It slowly attracts moisture when exposed to the air."

The whole process of making pepsin, many steps of which are secret, consists in the isolation of the ferment to as great a degree as possible, there being no way of getting it entirely separate from the cell walls of the stomach.

From the stomachs of calves comes the extract of rennet which is also made at the laboratory and largely used in cheese-making. The process of manufacture is simple. The stomachs are chopped up in a sausage machine into fine bits and macerated in a solution of salt and water. It is then ready for packing and shipment. Because cheese contains so much of the digestive ferment—pepsin—it is said to "digest everything but itself." Perhaps this is the reason cheese goes with pie at the end of the meal—Chicago Record

### Bees Form Friendships.

"I always loved bees," said the young man in gold-bowed glasses behind the dairy counter as he handed down a honeycomb for the inspection of an idle customer. "When I was on the farm," he continued, "I could go all about the hives and not get stung, and none of the others dared go near the bees. We used to have an old farmer come around and tend to the swarms, but one day when I was a boy working in the fields I heard a great humming noise up in the air and saw a swarm a-coming. Well, I picked up a tin pan that was there and hammered on it till the bees settled on the end of a fence rail. Then I thought I could tend to the swarm as well as the old farmer, so I got an old hive, washed it out with honey and water, rubbed my hands and arms with burdock juice and honey and water, and went at the bees. I got them off that rail by the handful and they never stung me.

"After that I regularly tended to the bees. Whenever there was a swarm I rolled up my sleeves, took off my shoes and hat and went at them. I have taken them from all sorts of places, but I was stung only once. They'd light on my head by the dozen and crawl through my hair. That used to send cold chills down my back. Sometimes my arms were so covered with bees that from wrist to elbow you couldn't see the flesh. The one time when I was stung I had found a swarm on a high limb and was sawing it off and at the same time holding on to it so that it should not fall to the ground with the bees. In doing this I squeezed one of the bees, and it flew straight at my temple and stung me just above the eye. Since I left the farm the folks have given up the bee business. There's no doubt about it, bees like some folks and hate others, and I don't know any reason for the difference."—New York Sun.

### Division of the Sexes.

The males in the United States at the last census numbered 32,067,880, and the females 30,554,370. This is a larger proportion of males than in 1850 or in 1860. The facts show, it is said, a tendency to an increase in the proportion of males, which has exceeded that of females certainly during the last forty years, although the tendency received a setback during the civil war, from which it is now recovering. A table shows that in Europe, while the numbers of the two sexes are nearly equal, the females are in excess, the proportion ranging from 50.58 in the Netherlands to 51.46 in the United Kingdom and 52.10 in Norway. In our country the percentage of females at the last census was 48.79, and that of males 51.21, the excess of the latter being ascribed to immigration. No doubt emigration accounts also, for some of the figures in European countries; yet in Spain, where there is comparatively little of it, we find but 49.04 males to 50.96 females, and in Austria, where there is not excessive emigration, 48.91 to 51.09.

Of course, the difference between our own States in this matter is great. The factories on the Atlantic border attract great numbers of female operatives, while the outdoor occupations of the West draw many males. In Montana there are two males to one female, and nearly as great a ratio in Wyoming. On the other hand, in New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Maryland, Virginia, and both Carolinas, females are in excess, although this excess is not great. In the District of Columbia they constitute 52.44 per cent, and in Massachusetts, which stands next, 51.42.—New York Sun.

### A Goat in a Coat.

A tame, long-haired goat once formed part of the regular crew of a passenger steamer on service between an English port and a Continental one.

After a time the customs authorities discovered that it wore a false coat many sizes too large for it.

The goat's own hair was clipped very close, around its body were packed cigars, lace, etc., and then the false coat was skilfully put on, and fastened by hooks and eyes.—Toronto Mail.

### Not Mathematical, but Right.

"Suppose now," said the teacher, "I should give two boys an apple and tell you to cut it in two, how much would you get, Tommy?"

"None," replied the youth, "lessen you helt Jim till I eat it up!"—Atlanta Constitution.